



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/963,807	09/26/2001	Roger Lee Buis	BLD920010012US1 506,384US	1170
7590	08/25/2005		EXAMINER CARBONELLO, MICHAEL J	
david w lynch crawford maunu pllc 1270 northland drive suite 390 mendota heights, MN 55120			ART UNIT 2622	PAPER NUMBER
DATE MAILED: 08/25/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,807

Applicant(s)

BUIS ET AL.

Examiner

Michael Carbonello

Art Unit

2622

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/26/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Many of the Acronyms are not defined; examples include page 1, line 18; SGML, page 2, line 4 HTML, page 6, line 6; WAP, page 6, line 13, PDL, PDF, and AFP, page 8 lines 8 and 10; XMDS. Lastly page 3 lines 15 and 20 reference CSS, but it is not defined until page 4 line 1. The examiner recognizes some acronyms are more commonly known such as HTML (hyper text markup language), but many others are not readily known. The Examiner requests that acronyms, especially ones pertinent to the application, be defined as they are introduced.

Drawings

2. The amended drawings were received on 1/18/2002. The Examiner accepts these amended drawings.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1, 2, 3, 4, 5, 6, 7, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Brooke et al. *[Examiner note; XML is defined: extensible markup language, and XSL is defined: extensible style language]*

4. Regarding claim 1, Brooke et al discloses in column 3, lines 17-20; "A formatting template for printing XML files, comprising a data map format containing XML descriptors defining the formatting for elemental content of the XML file." Further with respect to claim 1, using the broadest reasonable interpretation "data content and style inform" are types of descriptors and "control statements that reference at least one resource containing display information" are content of the XML file.

5. Regarding claim 2, Brooke et al discloses the methods described above, and further teaches in column 1, lines 33-35; "XML descriptors are identified by a qualified tag." With respect to claim 2, using the broadest reasonable interpretation the standard set of code tags could be descriptors identified by qualified tags.

6. Regarding claim 3, Brooke et al discloses the methods described above, and further discloses in column 9, lines 23-34; "the qualified tag comprises a concatenation of XML element start tags that must be traversed in the XML file to get to a particular element." With respect to claim 3, using the broadest reasonable interpretation, the hierarchal database format for searching is method of storing data that would require tags being traversed to get to a particular element.

7. Regarding claim 4, Brooke et al discloses the methods described above, and further discloses in column 6, line 38-47; "the qualified tag identifies a description that it

used to format the content for the element.” With respect to claim 4, the “result tree’s formatted presentation,” is used to “format the content for the element.”

8. Regarding claims 5 and 6, Brooke et al discloses the methods described above, and disclosed in column 6, lines 50-54; “the qualified tag is generated whenever a start tag is encountered. ” and also “the qualified tag is modified whenever a start tag is encountered.” With respect to claims 5 and 6, using the broadest reasonable interpretation the “templates for the particular source elements that are part of the tree” could represent both qualified tags and start tags being, which are being generated and modified as elements are added to the tree.

9. Regarding claim 7, Brooke et al discloses the methods described above, and further discloses in column 6, lines 16-21; “the XML file to be printed is parsed into element contents that can be broken into fields and processed using a chain of field XMDS.” With respect to claim 7, Using the broadest reasonable interpretation the XSL file which contains data to “express how the structured content of the of an XML file should be styled, laid out, and paginated,” is a method of parsing elements and processing them.

10. Regarding claim 8, Brooke et al discloses the methods described above, and further discloses in column 11, lines 46-57; “the element contents are broken into fields either by byte counts or with delimiters.” With respect to claim 8, using the broadest reasonable interpretation of a “delimiter”, the script files show delimiters being used. For example, in column 11, line 49; “<xdb:height> 150 </xdb:height>” the entire code segment “<xdb:height>” is being used as a delimiter.

11. Regarding claim 9, Brooke et al discloses the methods described above, and further discloses in column 6 lines 34 –37, and column 6, lines 41-44; “a chain of attribute XMDS are used for formatting attributes, wherein the attributes are broken into fields, the fields being formatted with a chain of field XMDS.” With respect to claim 9, using the broadest reasonable interpretation a “namespace feature” would allow the user to apply formatted attributes, and also a “result tree” would be used to display the formatted information.

12. Claims 10, 19, 24 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Jecha et al. Regarding claims 10, 19, 24, 29 Jecha et al discloses in column 5, lines 17-37 “A printing system, comprising: a spooler for receiving printable information from the print channel, a print services facility for parsing an XML file, formatting the XML file according to a formatting template, the print services facility organizing a data stream representing the formatted XML file and generating a print stream having been formatted using the formatting template, and a printer for printing the print stream according to the formatting defined by the formatting template, wherein the formatting template defines a data map format containing XML descriptors defining the formatting for an element of the XML file.” Further with respect to claims 10, 19, 24, 29 using the broadest reasonable interpretations of spooler, the non-volatile storage device, could be used to store print jobs before being sent to the printer. Further, Jecha teaches the translation program, translates documents into file formats suitable for pre press...include XML, HTML, PDF.” Using the broadest reasonable interpretation, this could be a method of “formatting of the XML file according to a formatting template.”

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 11-18, 20-23, and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jecha et al in view of Brooke et al.

14. Regarding claim 11, Jecha et al discloses the methods and devices described above specifically the printing system as discussed in claim 10. Jecha et al does not disclose a method, "wherein the XML descriptors are identified by a qualified tag." Brooke et al discloses the methods and devices described above, wherein column 1, lines 33-35; "to this end, markup language files use a standard set of code tags embedded in their text that describes the elements of a document." Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where descriptors are identified by tags. The benefits of the tags are that each computer having its own unique hardware and software capabilities is able to display the document while preserving the original format of the document.

15. Regarding claim 12, Jecha et al discloses the methods and devices as described above, specifically the printing system discussed in claim 10. Jecha et al does not disclose a method, "the qualified tag comprises a concatenation of XML element start tags that must be traversed in the XML file to get to a particular element." Brooke et al

disclosed in column 9, lines 23-34; "XDB 201 is a hierarchical database format that is accessed using XSP and translated into XML and XSL by data gathering process 204 and stylesheet builder 206. XDB 201 can be used to locate a piece of XML data using a hierarchical reference. This hierarchical reference is treated much like a path to a file in the hard disk file system. The reference is made up of a number of "folder" names, ending with a name to an actual resource within the final "folder". The resources and folders are all represented as XML. Folders can be specified both inline (inside the same XML file) and out of line in a separate file." Hence, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where tags are traversed to get to a particular element. The motivation for combining these is that the ordering of the tags creates a path to the specific file, folder or element that needs to be accessed, also this allows developers to build large, but manageable data structures.

16. Regarding claim 13, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 10. Jecha et al does not disclose a method where "the qualified tag identifies a description that it used to format the content for the element." Brooke et al teaches in column 6, line 38-46; "An XSL style sheet processor accepts a document or data in XML and an XSL style sheet, and produces the presentation of that XML source content as specified by the style sheet. The presentation process includes transforming a source tree into a result tree (also known as tree transformation), and interpreting the result tree to produce a formatted presentation on a display or other media." Therefore, it would have been obvious at the

time of invention to one of ordinary skill in the art to combine Brooke et al with Jecha et al to produce a printing system where a tag identifies a description that is used to format content for the element. The motivation is that style and formatting aspects may be modified without modifying the data that is being rendered.

17. Regarding claims 14 and 15, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 10. Jecha et al does not disclose a method wherein, "the qualified tag is generated whenever a start tag is encountered. " and also "the qualified tag is modified whenever a start tag is encountered." Brooke et al discloses in column 6, lines 50-54; "A template is instantiated for a particular source element to create part of the result tree. When a template is instantiated, each instruction is executed and replaced by the result tree fragment that it creates." Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where a tag is generated or modified when a start tag is encountered. The motivation is that elements can be distinguished, with the use of said tags, from one another, sorted, content can be added or removed and edited as needed.

18. Regarding claim 16, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 10. Jecha et al does not disclose a system where, "the XML file to be printed is parsed into element contents that can be broken into fields and processed using a chain of field XMDS." Brooke et al discloses in column 6, lines 16-21; "XSL is a language for expressing style sheets in XML, i.e., to express how the structured content of an xml file should be styled, laid out,

and paginated onto some presentation medium such as a window in a web browser or a set of physical pages in a book, report, pamphlet, or memo.” Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where an XSL is a language for expressing style sheets in XML. Using the broadest reasonable interpretation of the phrase “parsed into elements”, the XSL would be a method where an XML file is broken into various components. The motivation of parsing the elements is that the various components, such as style and pagination, can be broken down into elements to be printed to allow greater control over how the images are displayed.

19. Regarding claim 17, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 10. Jecha et al does not disclose, “the element contents are broken into fields either by byte counts or with delimiters.” Brooke et al disclosed in column 11, lines 47-48;

“<xdb:width>150</xdb:width> <xdb:height>130</xdb:height>.” The definition of a delimiter is: “special characters that separate different items in a command line.” Using the broadest reasonable interpretation, <xdb:width>, would represent a type of delimiter. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where elements and contents are broken into fields by delimiters. The benefit of using delimiters with the printing device is that the delimiters provide a method for separating and differentiating the various elements from one another.

20. Regarding claim 18, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 10. Jecha et al does not disclose, "a chain of attribute XMDS are used for formatting attributes, wherein the attributes are broken into fields, the fields being formatted with a chain of field XMDS." Brooke et al disclosed in column 6 lines 34 –37; "To accomplish this, XML provides a namespace feature, which allows the user to specify address to provide a unique context to tags and attributes." Brooke et al also disclosed in column 6, lines 41-44; "The presentation process includes transforming a source tree into a result tree (also known as a transformation tree), and interpreting the result tree to produce a formatted presentation on a display or other media." Thus, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where the XML, which provides a namespace feature, allows the user to specify addresses to provide a unique context to tags and attributes are broken into fields to be formatted. The motivation is aspects may be modified without modifying data that is being rendered.

21. Regarding claim 20, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 19. Jecha et al does not disclose, "parsing the XML file to be printed into elemental content, searching the formatting template for formatting instructions for a parsed element content, determining whether the search was successful, formatting the element content using formatting instructions obtained by the search, and determining whether the end of the document has been reached." Brooke et al discloses the methods and devices discussed above,

specifically and further discloses in column 8, lines 52-56; "The XSL document and the XML meta-document are input to XSL transform 208 which searches the hierarchy of modules specified in both the meta-document and the style sheet and uses the inheritance mechanism to determine which modules to utilize." Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system that parses the XML into elemental content, searches the templates for instructions, determines whether the search was successful, formats the element content from the search, and determine whether the end of the document has been reached. Further with respect to claim 20, the result tree is a method of parsing up the elements. Also the ability to paginate documents allows the device to determine beginnings and ends of documents. The motivation being that separate information can easily be broken into separates pages as needed to allow printing of individual elements or groups of elements.

22. Regarding claim 21, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 19. Jecha et al does not disclose, "further comprising continuing to process parsed element content when the end of the document is not reached." Brooke et al discloses the methods described above, specifically claim 7. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where the device continues to process parsed elements when the end of the document has not been reached. With respect to claim 21, the ability to parse contents (as discussed above) as well as paginate said contents

provides a method to continue processing the contents when the end of the document has not been reached. The benefit is that if the end of the document has not been reached the device will continue to parse elements until an end has been reached, while continuing to checking to see if the particular page has ended or not.

23. Regarding claim 22, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 19. Jecha et al does not disclose, "further comprising sending the formatted data stream to a printer." Brooke et al discloses the methods described above, Brooke et al further discloses in column 8, lines 61-64; "The result tree fragments generated in XSL transform 208 are output to an XML document and sent to post renderer 210. Post renderer 210 converts the XML document to the document format required by the device or application." Thus, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system that further comprises sending the formatted data to a printer. Using the broadest reasonable interpretation a "post renderer" is a type of printer. The motivation is that it provides an output means with which to display the document for the user.

24. Regarding claim 23, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 19. Jecha et al does not disclose, "wherein the formatting template comprises a chain of attribute XMDS for formatting attributes, wherein the attributes are broken into fields, the fields being formatted with a chain of field XMDS." Brooke et al discloses the methods described above, specifically claim 18. Therefore, it would have been obvious at the time of

invention to one of ordinary skill in the art to combine Brooke et al with Jecha et al to produce a printing system where the XML allows the user to specify addresses to provide a unique context to tags and attributes are broken into fields to be formatted. The motivation is that aspects of the various documents may be modified without modifying data that is being rendered.

25. Regarding claim 25, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 24. Jecha et al does not disclose, "further comprising: parsing the XML file to be printed into elemental content, searching the formatting template for formatting instructions for a parsed element content, determining whether the search was successful, formatting the element content using formatting instructions obtained by the search, and determining whether the end of the document has been reached." Brooke et al discloses the methods described above, specifically claim 20. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Brooke et al with Jecha et al to produce a printing system that parses the XML into elemental content, searches the templates for instructions, determines whether the search was successful, formats the element content from the search, and determine whether the end of the document has been reached.

26. Regarding claim 26, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 24. Jecha et al does not disclose, "further comprising continuing to process parsed element content when the end of the document is not reached." Brooke et al discloses the methods described

above, specifically claim 7. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Jecha et al with Brooke et al to produce a printing system where the device continues to process parsed elements when the end of the document has not been reached. The benefit is that if the end of the document has not been reached the device will continue to parse elements while checking to see if the page has ended or not.

27. Regarding claim 27, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 24. Jecha et al does not disclose, "further comprising sending the formatted data stream to a printer." Brooke et al discloses the methods described above, specifically the methods described in claim 22. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Brooke et al with Jecha et al to produce a printing system that further comprises sending the formatted data to a printer. The motivation is that it provides a means with which to display the output of the document for the user.

28. Regarding claim 28, Jecha et al discloses the methods and devices as described above, specifically the printing system described in claim 24. Jecha et al does not disclose, "article of manufacture, wherein the formatting template comprises a chain of attribute XMDS for formatting attributes, wherein the attributes are broken into fields, the fields being formatted with a chain of field XMDS." Brooke et al discloses the methods described above, specifically claim 23. Therefore, it would have been obvious at the time of invention to one of ordinary skill in the art to combine Brooke et al with Jecha et al to produce a printing system where the XML allows the user to specify addresses to

provide a unique context to tags and attributes are broken into fields to be formatted. The motivation is aspects may be modified without modifying data that is being rendered.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

30. Slaughter et al, "A system and method for spawning new spaces in a distributed computing environment. A client may access a first space service at a first Internet address. The first space service may store one or more service advertisements and/or other content in a first space, and each of the service advertisements may include information which is usable to access and execute a corresponding service. The first space service may include a first XML schema which "

specifies one or more messages usable to invoke functions of the first space service.

31. Batres discloses, "A method and system for previewing and printing customized pages, such as business forms including invoices and billing statements. An author-created template has HTML and OLE components (controls) placed on a page to define a visual representation of a class of object that is part of a database.

32. Robertson et al discloses, "A document creation system and method in which electronic information intended for reproduction and including at least one hyperlink is accessed."

33. Sundaresan discloses, "A system for specifying transformation rules of Extensible Markup Language (XML) documents into other XML documents, wherein the rule language used is XML itself."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Carbonello whose telephone number is (571) 272-0625. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Carbonello
Examiner
Art Unit 2622

MJC

JOSEPH R. POKRZYWA
PRIMARY EXAMINER
ART UNIT 2622
